

ERGONOMICS@LLNL

Ergonomics@LLNL offers an array of services to help individuals and departments reduce ergonomic risks



Ergonomics Resources

■ Computer and Office Ergonomics

Mousing tips and information on workstation organization, keyboard tray adjustments, laptops, wrist rests, ergonomic chairs, and other topics for computer users can be found on the Ergonomics Website at <http://www.llnl.gov/ergo>.

Stretchware, a site-licensed stretch break reminder software that can be used on a PC and Mac (9.2 or earlier), can be downloaded at <https://esd.llnl.gov/esd.cfm>. Research shows positive benefits in taking 3–5 minute breaks every 20–30 minutes.

■ Computer Workstation Evaluations

The Laboratory has developed a network of department computer workstation evaluators, who are the first line of defense against computer-related repetitive strain injuries. To have your workstation evaluated, contact your supervisor, a member of the ES&H Team assigned to your department, or call 2-ERGO, the Lab's one-stop shop for ergonomics information.

■ Non-Computer Worksite Evaluations

Departments can schedule worksite evaluations for employees performing non-computer tasks, such as those involving bending, pushing/pulling or lifting, or who handle tools whose use requires repetitive motion. Call 2-ERGO for details.

■ Demo Room, Ergonomic Equipment

The Lab's Ergonomics Demo Room is located in Room 145, Bldg. 255. Chair fittings are available, and ergonomic equipment can be examined. Some items such as keyboards and mice can be borrowed for up to two weeks. The loaner program is part of the Demo Room's try-before-you-buy philosophy (departments are responsible for making their own ergonomic equipment purchases). Call 2-ERGO to make a Demo Room appointment. Visitors are encouraged to have had an ergonomic evaluation first.



Training

Visit the Hazards Control Safety Education & Training Website (<http://www-hctrain.llnl.gov>) for a complete listing of course catalog, training, and video library options. If you are interested in taking a course, contact your department's Training Coordinator and contact the Hazards Control Computer-based Training Facility at ext. 3-1094 to schedule a time.

KeyMoves (HS5316-W-VDT) is a Web-based program for prevention of discomfort, pain, and possible repetitive strain injury caused by incorrect use of computer keyboards. Key-Moves (online at <http://EODD-SERVER.LLNL.GOV/KEYMOVES/WELCOME.HTML>) is based on The HAND Book by Stephanie Brown. The book is available on loan by calling 2-ERGO.

Courses for non-computer users are Back Care (HS5300) and Selection of Ergonomic Hand Tools (HS5311). HS5300 teaches proper lifting, sitting, and standing; the nature of back injuries; methods for preventing back pain; and exercises to strengthen the back. HS5311 offers instruction on how to select and use hand tools in an ergonomically correct way as well as how to prevent cumulative trauma injuries.

Group training is available in ergonomic issues for jobs involving tool use, lifting, manual material handling, or laboratory work. If you are a supervisor or manager and want to find out about training tailored to address your department's non-computer related ergonomic risks, call 2-ERGO or contact a member of the ES&H Team serving your area.



Ergonomics Information

■ Seek help if discomfort occurs

Notify your supervisor and contact your ES&H Team member or Health Services by calling 2-ERGO.

Discomfort associated with ergonomic-related problems may manifest in many different ways. Early intervention is essential for efficient resolution and recovery. Common symptoms of discomfort include pain, numbness, tingling, stiffness, cramping, inability to hold objects, or loss of grip strength. If you are experiencing such symptoms, tell your supervisor and seek medical attention from Health Services. Repetitive motion injuries are easier to treat in their early stages. Ignoring symptoms could lead to chronic or serious injury.

■ Where to get ergonomics help

Your supervisor should be your first point of contact when you need ergonomic assistance or ergonomic tools such as a computer desk, chair, or pointing device. You can also seek assistance from an ergonomic evaluator in your department, a physical therapist in Health Services, or a member of the ES&H Team that serves your area. You can find where to seek assistance by contacting 2-ERGO, the Laboratory's ergonomics hotline.

■ Ergonomics Intervention Team

The Laboratory maintains an Ergonomics Intervention Team, composed of ergonomic specialists from the Health Services and Hazards Control departments. Through the Early Intervention Program (EIP), team members work directly with workers in discomfort at their worksite to help minimize and alleviate the discomfort.

The goal of this program is to provide services for workers in the first/early stages of discomfort (work- or non-work-related).

The Ergonomics Intervention Team also helps with:

- Work group injury prevention support services including assessing and managing ergonomic risks for work groups with unique job demands.
- Individual ergonomic evaluations for complex job tasks, needs, or injured workers.

For questions or referrals please call 2-ERGO.

■ New Ergonomics Website

A new Laboratory Ergonomics Website has resources for ergonomic evaluators, managers, engineers/designers, Ergonomics Committee members, and laboratory, material handling, and office workers. The URL is <http://www.llnl.gov/ergo>.

Visit this site and you will find:

- Information on the Ergonomics Intervention Program and LLNL's ergonomic hotline (2-ERGO), and request forms for services such as ergonomic evaluations and chair fittings.
- Links to product information, publications, helpful hints, and resources of all kinds.
- Ergonomic tips for children and ergonomic information on sewing, gardening, sleeping, and much more.

■ LLNL Ergonomics Committee

The Laboratory's Ergonomics Committee, made up of representatives from all Laboratory directorates, works to promote ergonomic awareness throughout the Laboratory. The committee is chaired by Melanie Alexandre, Hazards Control's ergonomics specialist.



Lawrence Livermore's Ergonomics Program



To Contact

Ergonomics@LLNL:

- Call 2-ERGO
- E-mail [Candace Quick, 2-ERGO](mailto:Candace.Quick@llnl.gov) point of contact, at quick2@llnl.gov
- Visit the Ergo Web site at <http://www.llnl.gov/ergo>

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Lawrence Livermore's Ergonomics Program

Defining Ergonomics

Ergonomics is the art and science of combining good habits and optimizing the environment to meet an individual's needs. It focuses on designing workstations, tools, and job tasks for safety and efficiency. Effective ergonomic design coupled with good posture can reduce employee injuries and increase job satisfaction and productivity.

Injuries related to poor workplace ergonomics, such as back injuries, carpal tunnel syndrome, and tendonitis, can be painful for employees and costly to the Laboratory. To prevent these injuries, Ergonomics@LLNL promotes ergonomic training, education, and awareness.

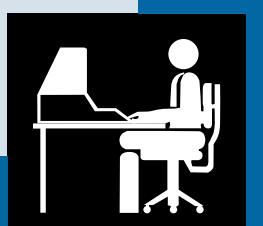


Ergonomic risk factors:

Ergonomic risk factors have been well studied and documented as potential culprits of injury and illness. Ergonomic-related injuries can occur after repeated or prolonged exposure to risk factors. If your job involves computer use, working with tools, lifting, manual materials handling, or working in a laboratory, there may be ergonomic risks such as:

- ▶ **Repetition:** doing the same motions over and over again.
- ▶ **Awkward Body Postures:** maintaining unsupported fixed or awkward postures such as bending, reaching, or twisting.
- ▶ **Force:** applying pressure to or physically exerting any part of the body through work, such as lifting, pushing, pulling, reaching, carrying, climbing, pinching, or gripping.
- ▶ **Contact Stress:** applying pressure to soft tissues of the body such as the soft part of the palm of the hand or to the wrist through tools or sharp edges.
- ▶ **Vibration:** using vibrating or impact tools or equipment.
- ▶ **Extreme Temperatures:** Subjecting the body to cold temperatures that constrict blood flow and decrease nutrients to the body or to hot temperatures that increase blood flow while increasing the level of fatigue.

Other risk factors include an individual's medical condition, personal activities, and stress.



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